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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,428	01/18/2002	Gregory K. Otten	Grant Prideco-124-1	1008

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EXAMINER

HEWITT, JAMES M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,428

Applicant(s)

OTTEN ET AL

Examiner

James M Hewitt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☒ Claim(s) 2, 6-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Election/Restrictions***

In Paper No. 8, Applicant elected Species I, which includes Figures 1, 1A, 4 and 5. Applicant stated that the claims readable on Species I were claims 1-6 and 8. Upon reevaluation, the Examiner has determined that this is incorrect. Claims 1-7 are readable on Species I, and claims 1-2, 5-6 and 8-9 are readable on Species II. From Figures 1 and 1A, it is clear that claim 7 is applicable to Species I. And from Figures 2, 3 and 3A, page 10 lines 12-20 and page 11 lines 3-6 of the specification, it is clear that claims 8-9 are applicable to Species II. Normally, this would have resulted in claims 8-9 being withdrawn from consideration as being drawn to a nonelected species. However, since generic claim 6 is found to be allowable over the prior art, the restriction requirement as to the encompassed species is hereby withdrawn and claims 8-9, directed to Species II are not withdrawn from consideration since all of the claims to this species depend from or otherwise include each of the limitations of an allowed generic claim. Thus, claims 1-9 have been treated on the merits.

In view of the above noted withdrawal of the restriction requirement as to the linked species, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable generic linking claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no

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longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Claim Objections

Claims 1-9 are objected to because of the following informalities:

In claim 1 line 11, the phrase "externally of" should be replaced with "on". Using the phrase "externally of" incorrectly makes it seem as if the pin seal surface is not on said pin.

In claim 2 line 3, "external" should be deleted. The internal seal is not formed by direct contact between external surfaces of the pin and box. Rather, it is formed by contact between an external surface of the pin and an internal surface of the box.

In claim 6 line 7, the comma should be deleted.

In claim 6 line 12, "the external" should be deleted. The internal seal is not formed by direct contact between external surfaces of the pin and box. Rather, it is formed by contact between an external surface of the pin and an internal surface of the box.

In claim 7 line 2, the phrase "of a" should be replaced with "of said second".

In claim 8 line 1, "Connector" should be replaced with "connector".

Appropriate correction is required.

Note that for examination purposes the claims have been treated as if the above-suggested changes have been incorporated therein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (US 2,308,066) in view of Feisthamel (US 1,590,357).

With respect to claim 1, Evans discloses a connector comprising: a pin having pin threads formed externally on an end of a first tubular body (1), said pin threads extending from a starting point on said first tubular body and terminating adjacent the free pin end, a box having box threads formed internally on an end of a second tubular body (4), said box threads extending from a starting point on said second tubular body and terminating adjacent the free box end, said pin adapted to be received in and threadedly engaged with the box, an external seal (10) between the pin and the box

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adjacent the free box end, the external seal comprising a separately constructed annular body of metal secured on the pin end of the first tubular body (a pin seal surface formed on the pin on a third tubular body comprising a metal seal base separately added to the first tubular body), see page 1, column 2, lines 14-26). Evans fails to teach an internal seal adjacent the box threads starting point and the free pin end whereby said pin threads and said box threads are confined between said external and internal seals when said pin and box are engaged. Feisthamel discloses a pipe joint comprised of a pin and box. Feisthamel provides an external seal at the free box end and an internal seal (7a) adjacent the free pin end. The pin threads and box threads are confined between the two seals. In view of Feisthamel's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Evans to include an internal seal as taught by Feisthamel in order to provide sealing between the free pin end and box to prevent fluid from getting in between the threads of the two tubular bodies and causing wear of the joint (see Feisthamel, page 1 column 1 lines 14-25).

With respect to claim 3, wherein said metal seal base is formed as an annular metal ring and secured to said first tubular body. Spraying the metal (10) in layers forms an annular metal ring. Refer to Evans, page 1, column 2 lines 14-36.

With respect to claim 4, Evans states that his seal (10) may be applied by welding, and since during the welding process weld beads are applied to and form on a given surface, Evans is considered to meet the limitations of this claim.

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With respect to claim 5, wherein said pin threads and said box threads are fully confined between said external and internal seals when said pin and box are engaged.

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Note that the allowability of claim 2 is also contingent on overcoming the above noted objections to claims 1 and 2. See ***Claim Objections***.

Claims 6-9 are objected to, but would be allowable if rewritten to overcome the above noted objections to claims 6-8. See ***Claim Objections***.

Response to Arguments

Applicant's arguments filed 11/20/03 have been fully considered but they are not persuasive.

On pages 6-7, Applicant argues that there is no teaching or suggestion to combine Feisthamel with Evans to arrive at the invention of claim 1. The Examiner disagrees. Both Evans and Feisthamel disclose similar pipe joints. Each is threaded, and used particularly in drill stems for well tubing, and each is concerned with creating a leak-proof, durable joint. Each provides a seal in between the free end of the box and the start of the threads on the pin. Each pin does not engage against the internal

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shoulder of the box. Feisthamel, as Applicant notes, incorporates a seal between the free end of the pin and the start of the threads on the box. He does this to prevent fluid from getting in the joint in between the threads of the pin and box to prevent wear of the threads (Feisthamel: pg. 1, col. 1 ll. 14-25). As Evans does not provide a seal between the free end of the pin and the start of the threads on the box, it is evident that fluid will get in between the threads and cause the threads to wear. To avoid this and to keep with Evans' objective of a durable joint, the skilled artisan would find it obvious to employ a seal in Evans per Feisthamel's teaching. And this is achieved without shouldered contact between the end of the pin and the internal shoulder of the box is avoided, as Evans requires. Note that Feisthamel's pin end and internal shoulder never come into contact.

Regarding Applicant's arguments with respect to the rejection of claim 3, the Examiner contends that spraying the metal (10) in layers forms an annular metal ring. Refer to Evans, page 1, column 2 lines 14-36. Such spraying secures the metal to the pipe.

Regarding the rejection of claim 4, it should be noted that Applicant did not present any arguments thereagainst, and thus it can be safely asserted that Applicant does not contest the rejection and the rejection is valid.

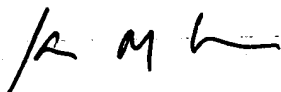
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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